WHAT IS CLAIMED IS:

1. A semiconductor wafer processing system comprising:

a first robot arranged downstream, in a feeding direction of wafers being processed, from an indexer carrying out wafer loading and unloading operations and adapted to feed a wafer loaded in the indexer to a desired one of processing units;

a first group of modules arranged in opposite sides of the first robot, the modules of the first module group being selected from first and second modules;

a second robot arranged downstream from the first robot in the wafer feeding direction via a first interface in such a fashion that it is aligned with the first robot in the wafer feeding direction;

a second group of modules arranged in opposite sides of the second robot, the modules of the second module group being selected from the first and second modules; and

a stepper arranged downstream from the second robot via a second interface in the wafer feeding direction and adapted to expose to light the entire portion of a wafer coated with a photoresist and fed thereto.

2. The semiconductor wafer processing system according to Claim 1, wherein:

each of the first modules comprises a plurality of bake

units each having a plurality of bake boxes arranged in a multi-layered fashion, the bake units being arranged in such a fashion that they are adjacent to one another in the wafer feeding direction, and a spin unit fixedly mounted on the bake units, the spin unit comprising a spin coater or a spin developer; and

each of the second modules comprises a plurality of wafer edge exposure units arranged in a multi-layered fashion while being arranged in such a fashion that they are adjacent to one another in the wafer feeding direction, each of the wafer edge exposure units serving to expose to light an unnecessary portion of the photoresist disposed on the peripheral edge portion of each wafer, and a spin unit fixedly mounted on the wafer edge exposure units, the spin unit comprising a spin coater or a spin developer.

3. The semiconductor wafer processing system according to Claim 2, wherein each of the bake boxes comprises a pair of thermal plates arranged side by side with each other, each of the thermal plates being selected from a hot plate adapted to heat a wafer and a cool plate adapted to cool a wafer in such a fashion that the thermal plates of each bake box have the same type or different types, respectively.

4. The semiconductor wafer processing system according to

Claim 1 ~~or 2~~, wherein:

the modules of each of the module groups are also arranged in a multi-layered fashion to form at least two module layers and have the same module type or a combination of different module types;

each of the module groups constitutes a station, together with feeding means; and

a ~~feeing~~ feeding interface or buffer stocker is arranged between adjacent stations respectively associated with the module groups.

5. The semiconductor wafer processing system according to Claim 3, further comprising:

a plurality of support pins extending through vertical holes provided at each thermal plate of each of the bake units in such a fashion that they move vertically through the vertical holes while supporting a wafer thereon;

a cylinder for vertically moving the support pins between a loading position, in which the wafer supported by the support pins is loaded on the thermal plate, and an unloading position, in which the wafer is unloaded from the thermal plate;

a feeding robot arranged in the vicinity of the bake units, the feeding robot serving to carry out loading and unloading operations for wafers with respect to each of the

bake units; and

a feeding arm arranged in a space defined between the thermal plates of each of the bake units and independently driven by separate drive means in such a fashion that it moves pivotally between the thermal plates, the feeding arm being provided at a free end thereof with a wafer holding member adapted to hold a wafer loaded in the bake unit.

6. The semiconductor wafer processing system according to Claim 5, further comprising:

a position sensor arranged in the vicinity of the support pins associated with each of the thermal plates and adapted to sense a moved position of the support pins; and

a controller coupled to the position sensor and adapted to control the cylinder, based on an output signal from the position sensor, in such a fashion that the support pins supporting a wafer move at a high speed at an initial stage of a downward movement thereof for loading the wafer on the associated thermal plate and at a low speed at a stage of the downward movement thereof just before the wafer comes into contact with the thermal plate while moving at a high speed when they are separated from the wafer.

7. The semiconductor wafer processing system according to Claim 5, further comprising:

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a cover member arranged above each of the thermal plates in such a fashion that it moves vertically with respect to the thermal plate, thereby opening and closing the thermal plate; and

a cylinder adapted to move the cover member between a position, where the cover member opens the thermal plate, and a position, where the cover member closes the thermal plate, the cylinder operating independently of the cylinder adapted to drive the support pins.

8. The semiconductor wafer processing system according to Claim 5, wherein the feeding robot comprises a pair of wafer feeding arms each adapted to feed a wafer to a desired position while holding the wafer, one of the wafer feeding arms having a plate shape and serving to support a peripheral portion of the wafer with the other wafer feeding arm having a bar shape and serving to support a portion of the wafer extending diametrically through the center of the wafer, so that a selected one of the wafer feeding arms operates to feed the wafer in accordance with the characteristics of a processing unit, in which the wafer is loaded.

9. The semiconductor wafer processing system according to Claim 8, further comprising means for setting a wafer loading position of the feeding robot, the means comprising:

a reflex sensor arranged on an upper surface of each bake unit at a position corresponding to the center of a wafer accurately loaded on the upper surface of the bake unit in such a fashion that it radiates a light beam onto the center of the accurately loaded wafer; and

a jig wafer loaded in the bake unit by the feeding robot when it is desired to set a wafer loading position of the feeding robot, the jig wafer being provided at a central portion thereof with a through hole allowing a light beam to transmit therethrough;

whereby the wafer loading position of the feeding robot is accurately set to correspond to a desired wafer loading position, based on a signal, generated from the reflex sensor, indicative of whether a light beam emitted from the reflex sensor transmits through the through hole of the jig wafer loaded by the feeding robot or reflects from the jig wafer.

10. The semiconductor wafer processing system according to ~~any one of Claim 1, and Claims 5 to 8~~ Claim 1, further comprising:

a stocker provided at the second interface arranged between a spinner, in which a baking process is carried out, and the stepper, the stocker having a plurality of stock compartments arranged in a multi-layered fashion and adapted to stock wafers completely processed by photoresist coating and developing processes; and

a pair of wafer feeding arms arranged at opposite sides of the stocker, respectively, to stock wafers in the stock compartments of the stocker at the opposite sides of the stocker.

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~~11~~. A semiconductor wafer processing system comprising means for controlling the amount of a coating solvent supplied when a photoresist solution is coated over a wafer, the means comprising:

a lamp for irradiating an LED light beam onto a central portion of a wafer loaded on a spin coater and rotated by the spin coater;

a CCD camera arranged in the vicinity of the lamp in such a fashion that it is focused onto an observation area defined on the wafer;

a CCD controller coupled to the CCD camera, the CCD controller controlling turn-on and turn-off states of the lamp during a low-speed rotation of the spin coater, recognizing an initial contrast of the wafer, checking, based on the recognized initial contrast, a variation in contrast occurring in the observation area when the coating solvent injected onto the wafer is diffused along the wafer, and detecting the variation in contrast in the form of an image; and

a main controller coupled to the CCD controller, the main controller receiving an image signal, generated from the CCD

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controller, indicative of the variation in contrast detected by the CCD controller, and controlling the operations of a variety of operating units including the lamp, the CCD camera and a nozzle adapted to inject the coating solvent.